

Project Fact Sheet

Wind Resource Mapping Project

GOAL

- Provide high quality, high-resolution wind resource maps for California
- Increase understanding of the state's overall wind energy development potential and identify areas of new development
- Provide the most updated wind information for the public and policy makers
- Supplement national wind mapping efforts by providing a consistent and validated wind resource dataset



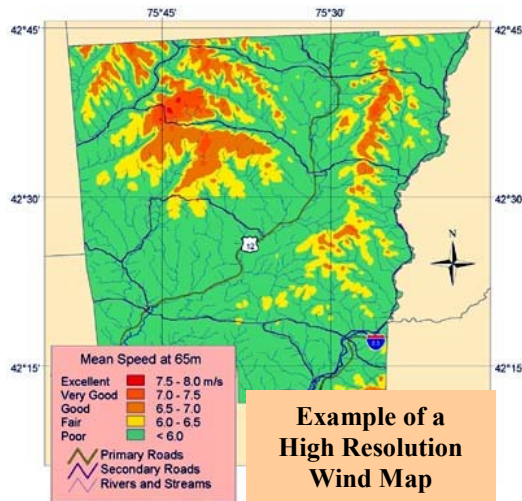
PROJECT DESCRIPTION

The Commission has contracted with TrueWind Solutions, LLC to generate high-resolution wind maps for California using state-of-the-art numerical modeling techniques along with site data validation. Truewind's proprietary MesoMap system has been developed over the past three years with support from the US Department of Energy (DOE) and the New York State Energy Research and Development Agency (NYSERDA).

Advantages over traditional wind resource assessment methods include speed, resolution, versatility to "re-tune" the map with the most up-to-date information.

The products of the project include:

- High-resolution maps on a 200m by 200m grid;
- Mean annual and seasonal wind speeds;
- Wind power density;
- Multiple elevations above ground level (i.e. 30 m, 50m, 100 m...);
- Includes nearby offshore areas;
- Low, moderate, and high wind regimes covered;
- Map dataset in GIS format;
- Data availability at a fraction of the current cost and time.



BENEFITS TO CALIFORNIA

As a result of this mapping effort, California users will have access to the latest and most comprehensive information available on the State's wind resource.

The products will help answer such questions as:

- How much development potential is there,
- Where are the best areas,
- What are the economic development opportunities,
- What are the most obvious barriers and sensitivities, and
- At what cost can electricity be generated.

At the local level, these products will help planning commissions and users to decide, for example, whether wind energy development is feasible and if an investment in a site-specific study is warranted. Seasonal maps of the wind resource will provide valuable information necessary to assess the feasibility of using wind energy for irrigation applications. Government planners and energy companies can adapt the maps to their specific energy programs. Finally, maps will facilitate future wind energy planning and siting decisions and technology transfer activities.

FUNDING AMOUNT

Commission \$150,000
Match \$0

PROJECT STATUS

Ongoing. Preliminary maps are under review and validation checks by NREL and California meteorologists. Maps are expected to be available for released by end of 2002.

FOR MORE INFORMATION

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